**Cabbage Juice Indicator**

**Materials**

|  |  |
| --- | --- |
| cabbage juice | ammonia |
| eyedropper | water |
| 1 large plastic cup | 4 other colourless household liquids |
| 7 smaller clear plastic cups | marker |
| vinegar |  |

**Procedure**

**Part 1**

1. Fill the large plastic cup about a quarter full with cabbage juice.

2. In each of the smaller cups add one of the available liquids (approximately one-third filled). Write the name of the liquid on the cup. You should have a total of seven liquids (water, ammonia, vinegar, white cranberry juice, sprite, cleaner & liquid soap).

3. Next add one eyedropper full of red cabbage juice to the cup with vinegar. Create a table that shows what cup will receive what liquid and also has an empty column to record your observations for each cup. Your table should look like:

|  |  |  |
| --- | --- | --- |
| **Cup Number** | **Contents** | **Observations** |
| 1 | Cabbage juice and vinegar |  |
| 2 | Cabbage juice and ammonia |  |
| 3 | Cabbage juice and water |  |
| 4 | Cabbage juice and …. |  |
| 5 | Cabbage juice and …. |  |
| 6 | Cabbage juice and …. |  |
| 7 | Cabbage juice and …. |  |

4. Add an eyedropper full of cabbage juice to the cup with ammonia. Record your observations.

5. Add an eyedropper full of cabbage juice to the cup with water. Record your observations.

**Part 2**

1. Using the additional liquids provided, add an eyedropper full to each of the cups and record your observations.

**Reflections**

1. In terms of pH, vinegar is an acid, ammonia is a base or alkaline and water is neutral. Using this information, what can you infer about the pH of the other liquids you tested?

2. What was the purpose to testing vinegar, ammonia and water first?

3. Why would testing tomato juice potentially give a false reading